

particular importance for low income, college-bound students. Results of this study suggest that partnership has not been fully realized. Parents in this study regarded college advising as an important component in judging school counselors' effectiveness. Yet, in a substantial minority of these families, parents did not seek (or encourage their children to seek) college advising from school counselors. Those who did generally held a low opinion of the usefulness and quality of the advisement their children received.

REFERENCES

- Chapman, D. W. (1981). A model of student college choice. *Journal of Higher Education*, 52(5), 490-505.
- Chapman, D. W., & Gill, S. J. (1981). College advising: Current perception, future direction. *Journal of College Student Personnel*, 22(4), 348-358.
- Chapman, D. W., O'Brien, C. J., & DeMasi, M. E. (1987). The effectiveness of the public school counselor in college advising. *Journal of College Admissions*, 115, 11-18.
- Gallup, A. M. (1980). The 12th Annual Gallup Poll of the public's attitudes toward the public schools. *Phi Delta Kappan*, 62.
- Litten, L. (1982). Different strokes in the applicant pool: Some refinements in a model of student college choice. *Journal of Higher Education*, 53(4), 383-402.
- Lowery, W. R. (1982). *College admissions counseling: A handbook for the profession*. San Francisco: Jossey-Bass.
- Tillery, D. (1973). *Distribution and differentiation of youth: A study of transition from school to college*. Cambridge, MA: Ballinger.
- Trent, J. W., & Medsker, L. L. (1969). *Beyond high school*. San Francisco: Jossey-Bass.

A Career Guidance Model for Adolescents With Learning Disabilities

Ernest F. Biller
Ellen E. Horn

Approaches often used in school-based career guidance programs for handicapped and nonhandicapped populations are described as matching models in which career counselors begin by examining existing data and asking "at what level can this person best function and in what [occupational] field will he or she be most likely to find satisfaction?" (Super, 1983, p. 555). In the early history of career guidance practices, a student's vocational aptitudes were the first criterion for career matching, followed later by assessment of interests and values (Herr & Cramer, 1988). Thus, these early occupational matching models took into account both the level of occupational entry and the field, and incorporated varying combinations of subjective or objective data on abilities, interests, and values of the client (Brown & Srebalus, 1988). In this traditional career-matching approach, the counselor assembles whatever data he or she has on file and has an initial meeting with the student. If the major concern is making a career choice, the tendency of the counselor is to think of additional data that may be needed, such as what the student's career

aptitudes, interests, and values are. This traditional career assessment approach generally has been described, according to Super (1983), as consisting of four major phases:

Phase 1. The evaluator or counselor previews the data on hand, which would include assembly of the data, the intake interview, and a preliminary assessment.

Phase 2. An in-depth study in which the evaluator or counselor obtains test data on vocational abilities and interests for matching the student to an occupation(s) is conducted.

Phase 3. The evaluator or counselor reviews the data collected and arrives at tentative interpretations for making a career prognosis or prediction.

Phase 4. The final phase includes the crucial counseling session with the student or client. Follow-up of

Ernest F. Biller is an assistant professor of rehabilitation services at The Ohio State University, Columbus. Ellen E. Horn is an informational writer in the Office of University Communications, The Wichita State University, Wichita, Kansas.

career recommendations made would be an extension of this phase.

This traditional four-phase career-matching model has been widely practiced over the last several decades; however, since the developmental stage theory of career guidance has come into prominence, the model has been criticized for making a number of unwarranted assumptions (Brown, 1984). One of those assumptions, stated Super (1983), was that "students or adults are all sufficiently mature vocationally to have mature and stable traits. It assumes that they are ready to use the self-knowledge provided by the assessment process in making career decisions" (p. 557). Vocational maturity or readiness for making career decisions (now commonly referred to as career maturity) refers to the degree to which a student makes career plans, explores his or her environment through participation in a broad range of school activities, acquires career information, possesses a strategy for making decisions, and uses these preceding competencies in a realistic manner when applying them to making career-related decisions.

CAREER MATURITY AND THE LEARNING DISABLED STUDENT

Counselors know that for adolescents and young adults, these career readiness competencies are more salient to some clients than to others and, therefore, are manifested in different degrees (Herr & Cramer, 1988). For example, it has been shown that many adolescents with learning disabilities (LD) lack planning ability (Ross, 1976; Tor-

gesen, 1977), are the least likely to participate in school activities (Alley, Deshler, Clark, Schumaker, & Warner, 1983), and have difficulty in acquiring information (Cordoni, 1981). Moreover, studies that have used test instruments designed to directly assess one's degree of career maturity, such as the *Career Maturity Inventory* (CMI; Crites, 1978) and the *Career Development Inventory* (CDI; Super et al., 1979), indicate that LD students are often less mature than many of their non-handicapped peers (Biller, 1988; Bingham, 1978, 1980; Kendall, 1981). Regarding the career readiness of students with learning disabilities, such findings would certainly support the need for developmentally based competencies in a career guidance practice that serves special populations such as LD students.

More recently, Super (1983) has developed a career assessment model that not only encompasses the aforementioned traditional four-phase assessment approach but also addresses the need to assess career readiness competencies. Also noted in the model is a method for assessing the degree of importance (salience) the student possesses for each life role, including the work or career life role. It is posited here that individuals who have little value for the work role are not likely to fully participate in the assessment process and are thereby less likely to benefit from it.

PHASE 1: INFORMATION AND ASSESSMENT

In Phase 1 of Super's (1983) Career Development Assessment Model (CDAM), the counselor is responsi-

ble for gathering existing relevant quantitative and qualitative data. Objectives for this initial intake interview should include (a) establishment of rapport with the student; (b) gathering of specific biographical data pertaining to family, medical, social, psychological, educational, and economic factors; and (c) determining the student's current needs and career goals. At the completion of this preliminary assessment phase, the student, parent, and appropriate staff members determine if and what additional types of career assessment are needed. Inclusion of the student and parents in this decision-making process is critical to the success of the assessments, for if the student and parents have not participated in the development of the assessment plan, they cannot be expected to be fully supportive of its results.

PHASE 2: IN-DEPTH STUDY

Prior to beginning the in-depth phase of the assessment model, a departure from traditional career assessment practice is recommended. It has been suggested by Super (1983) that the initial point to be considered concerning more in-depth testing is not what level of occupation or what field of work should be considered for the individual but rather the individual's "readiness to assess [his or her] abilities and interests, of readiness to make self and occupational matching decisions" (Super, 1983, p. 559). This type of readiness differs from the career readiness in career assessment models, which often denotes readiness to function within a job setting. The theoretical assump-

tions and research results I have noted in the past (1985a, 1985b) strongly suggest that many LD adolescents are not ready (career mature) to cope with career decision-making tasks required in the adolescent stage. Super (1983) has also noted "that to people to whom work does not seem important, the attitudes and information that constitute career maturity must seem irrelevant" (p. 558). Ruling out socio-economic status and sex as correlates of one's career maturity, Super also maintained that for some people, work and careers do not appear as a personal reality. Thus, it seems that readiness for career decision making encompasses more than the construct of career maturity—adolescents must also be motivated to want a career. Spreen's (1988) data on the job-related aspirations of LD young adults suggest that this motivation is lacking.

Work Importance and Career Maturity

Phase 2 of the assessment model incorporates the constructs of work importance and career maturity. Work importance consists of five diverse life roles: (a) study, (b) work and career, (c) home and family, (d) community service, and (e) leisure activities. Each of these roles represents Super's (1983) developmental concept of career. How motivated an individual is and how efficiently one manages the tasks involved in each role represent the degree of commitment and maturity in and through the career development life process. To assess this aspect of career development, and as part of the *International Work Importance Study*, Super & Nevill (1985) have devel-

oped test criteria designed to assess the relative importance of each major life role. The *CDI* developed by Super, Thompson, Lindeman, Jordaan, & Myers (1979) assesses the readiness (career maturity) of adolescents for career decision making.

Attention to dimensions of career maturity (Super, 1983) has at least two important implications for enhancing the LD adolescent's level of career maturity. First, the assessment of career maturity dimensions can provide points of reference from which the desired attitudes and competencies related to effective career growth can be diagnosed, assessed, and enhanced. Second, the identification of attitudes and competencies within each dimension allows the specification of objectives for instructional and counseling projects designed to promote mature development.

Assessment of these dimensions of career maturity and their variations can be accomplished through the use of several career-maturity assessment devices, such as Crites's (1978) *CMI*, Westbrook's (1973) *Cognitive Vocational Maturity Inventory*, and Super et al.'s (1979) *CDI*. Career-maturity assessment inventories primarily are measures of individual career development. The *CDI* is the model most consistent with the theoretical framework of Super's (1983) *CDAM*.

The current version of the *CDI* is based on longitudinal research begun in 1951 that documented the lack of career decision readiness of students in the 9th through 12th grades (Thompson, Lindeman, Super, Jordaan, & Myers, 1984). Originated from a pool of 20 measures or indices considered repre-

sentative of the vocational maturity construct, five indices of maturity were considered especially pertinent for Grades 9-12: (a) concern with choice, (b) acceptance of responsibility for choice and planning, (c) specificity of information about the preferred occupations, (d) specificity and extent of planning, and (e) use of resources in orientation (Super et al., 1984). The *CDI* consists of two attitudinal scales, three cognitive scales, and combinations of the five previously mentioned scales, which give information about various dimensions of career maturity.

***CDI* Testing Limitations With LD Students**

Because the *CDI* has a reading vocabulary at an approximately 10th-grade level, it may not be usable with some LD students. One adaptive alternative would be to select words from the *CDI* and include them in regular vocabulary instruction. Furthermore, the *CDI* was not normed on an LD population, and therefore interpretations and generalizations must be made cautiously. However, in at least one study (Brown, 1982), the *CDI* attitude dimensions were shown to have adequate coefficients of reliability for LD populations. Other adaptations of the *CDI* for LD students could include reading the test to the students, as well as allowing them to read along with the proctor. In the Career Planning and Career Exploration sections where the student must remember one major question and make several responses based on that question, the primary question could be written on the board to eliminate taxing a possibly weak memory ability.

Career Maturity and Other Life Roles

Another area of career maturity is "other life roles." As part of the developmental perspective of the *CDAM*, Super posited that it is important for adolescents to see themselves as individuals coping with the specific developmental tasks of the life stage they are experiencing. In contrast to traditional career education programs, which primarily define awareness as knowing about self and occupations, Super's type of awareness or recognition of need encompasses the need to be concerned about not only career planning and exploration but also the need to recognize the implications of one's current or future life role. This readiness to deal with all life roles (as spouse, work associate, or citizen) in the developmental approach can be considered a dimension of career maturity.

Realism: The Final Determinant of Career Maturity

While realism, due to its complexity, is not a measurable construct in the *CDI* assessment, it is important to review its basic definition. Explaining realism in the perspective of career readiness, Super (1983) offered the following definition of career realism: "It consists of self-knowledge, realism in self and situational assessment, consistency of career-role preferences, crystallization of self-concepts and of career goals, and of stabilization in major life roles such as those of worker, homemaker, citizen, and leisurite" (p. 558). As such, Super concluded that realism represents a combination of all the previously listed dimensions of adolescent career maturity.

Assessing Abilities, Interests, and Potential Functioning

Career guidance activities primarily have relied on a limited sample of student behavior for the purpose of making predictions about an individual's career potential. Unfortunately, the emphasis of using career-guidance testing instruments primarily has been directed toward identification of the static student's characteristics rather than toward a better understanding of their interaction between student behavior and environmental conditions. However, if appropriately used and the data considered in proper perspective, traditional career guidance methods should yield useful information for planning a student's career development program. Interest and aptitude testing, psychological testing, work samples, community or situational assessments, and on-the-job tryouts represent the basic assessment formats used in the evaluation of abilities and interests as well as in levels of occupational functioning. This derived career information will be even more valuable if it is strengthened by alternative assessment data that include information on student performance over time and under varying environmental conditions.

Testing procedures other than environmental procedures are very familiar to LD students because in most cases they have been tested for much of their school lives. As their learning problems continue to present adjustment difficulties, LD students' confidence and motivation to do well on those tests are diminished. Computerized assessment approaches are a promising, in-school career assessment method

for learning about one's aptitudes, interests, and work values. A computer-guided career assessment model known as *DISCOVER* has been found by Biller (1985a) to be highly motivating for students with learning disabilities.

Consistent with a major objective of the CDAM for adolescents with learning disabilities, *DISCOVER* promotes an increase in self-understanding by helping students to assess their interests, rate their aptitudes, and set priorities for their personal values. The *DISCOVER* career assessment system combines the student's stated values with occupational characteristics reported by the student. The *DISCOVER* program then provides occupations that are consistent with a student's individual interests and values, thus allowing exploration of occupations in detail, without using difficult to read career guidance materials and manuals. In addition to allowing students to gain increased awareness of career options, *DISCOVER* permits students to consider and explore as many alternatives as they like; the students are free to change their minds about any response, with the occupational results of those changes seen immediately.

Using Computers With LD Persons

As with the use of textbook material, students with learning disabilities will often likely have some degree of difficulty reading and understanding information presented on the computer screen, because much of the computer career information is geared to a high school vocabulary level. And, because the computer

generates such varied information, it is unrealistic to preteach this vocabulary. I suggest that the counselor be available for questions while the student is using the computer or that the student print out (via the computer) any information not understood and present it for interpretation when time permits.

Because of the broad range of aptitudes and skills that LD students possess, it is especially critical to evaluate each student as an individual who, like all other students, has many different academic strengths and weaknesses. Prior to beginning this formal career guidance process, the student's reading level—comprehension, decoding speed, and vocabulary—should be carefully examined to ascertain which evaluation procedures will need to be adapted or omitted. Support for this approach comes from Harnden, Meyer, Alley, and Deshler (1980), who have found from their research that the LD student's poor performance on traditional aptitude tests may be more indicative of deficient reading skills than of poor vocational potential.

Phase 2 Option: Assessing Determinants of Career Maturity

For some LD students, the assessment results yielded in Phase 2 of the CDAM may indicate such a low level of maturity and motivation that an examination of specific personality factors impeding the career development process should be conducted. Locus of control, self-esteem, and perspective about the future are considered by Super (1983) to be major determinants of

career maturity attitudes, and each may need to be examined more closely to determine if it is restricting the student's career development.

PHASE 3: REVIEW AND INTERPRETATION

In Phase 3 of the assessment model, the test data are reviewed and evaluated for the purpose of pointing out to the student which occupations are consistent with his or her vocational interests and aptitudes. If the assessment reveals that specific career maturity competencies are below average, then recommendations can be made to include a relevant improvement plan on the student's Individualized Education Plan (IEP). For example, a student scoring low on the "World-of-Work" subtest of the *CDI* should be given instruction pertaining to occupations in his or her career interest area, as well as the skills necessary for seeking and keeping jobs. The Phase 3 session also includes planning how to communicate the assessment results to the student and his or her parents or guardians.

PHASE 4: FINAL REVIEW AND FOLLOW-UP

The final phase of the assessment process should include the following: (a) a joint review and discussion session with student and parent; (b) where appropriate, a revision or acceptance of the assessment; (c) assimilation of the developmental concepts of the assessment findings by the client; and (d) discussion of further action to be taken and new IEP planning.

SUMMARY

Models of career guidance typically have been classified as matching models that, by and large, have failed to take into account developmental aspects of career behavior. Students who are planning-oriented, participate in school activities, seek out career information, possess a strategy for making decisions, and are realistic in the use of these skills, are considered able to more fully benefit from the traditional career guidance practices. It has been well documented that many adolescents with learning disabilities are less ready than their nonhandicapped peers to benefit from this traditional career assessment process. In order to enhance the overall career development of students with learning disabilities, a developmental model of career assessment is suggested in which career readiness and degree of importance for work are incorporated into the traditional career assessment model.

REFERENCES

- Alley, G. R., Deshler, D. D., Clark, F. L., Schumaker, J. B., & Warner, M. M. (1983). Learning disabilities in adolescent and adult populations: Research implications (Part II). *Focus on Exceptional Children*, 15(9), 1-16.
- Biller, E. F. (1985a). *Understanding and guiding the career development of adolescents and young adults with learning disabilities*. Springfield, IL: Thomas.
- Biller, E. F. (1985b). Career development of the learning disabled adolescent: A focus on career maturity. *Career Development for Exceptional Individuals*, 8, 17-22.

- Biller, E. F. (1988). Career decision making attitudes of college students with learning disabilities. *Journal of Postsecondary Education and Disability*, 6(4), 14-20.
- Bingham, G. D. (1978). Career attitudes among boys with and without specific learning disabilities. *Exceptional Children*, 44, 341-342.
- Bingham, G. D. (1980). Career maturity of learning disabled adolescents. *Psychology in the Schools*, 17, 135-139.
- Brown, D. (1984). Summary, comparison, and critique of major theories. In D. Brown & L. Brooks (Eds.), *Career choice and development* (pp. 311-336). San Francisco: Jossey-Bass.
- Brown, D., & Srebalus, D. J. (1988). *An introduction to the counseling profession*. Englewood Cliffs, NJ: Prentice-Hall.
- Brown, L. S. (1982). *Career-maturity and learning disabilities at the secondary level*. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg.
- Cordoni, B. K. (1981). Project achieve: Mainstreaming the learning disabled at the college level. *Perspectives: Research at Southern Illinois University at Carbondale*, 2, 1-6.
- Crites, J. O. (1978). *Career maturity inventory: Theory and research handbook*. Monterey, CA: CTB/McGraw-Hill.
- Harnden, G., Meyer, E., Alley, G., & Deshler, D. (1980). *Performance of learning disabled high school students on the Armed Services Vocational Aptitude Battery* (Research Rep. No. 24). Lawrence, KS: University of Kansas, Institute for Research in Learning Disabilities.
- Herr, E. L., & Cramer, S. H. (1988). *Career guidance and counseling through the life span: Systematic approaches* (3rd ed.). Glenview, IL: Scott, Foresman.
- Kendall, W. S. (1981). Affective and career education for the learning disabled adolescent. *Learning Disability Quarterly*, 1(4), 69-75.
- Ross, O. (1976). *Psychological aspects of learning disabilities and reading disorders*. New York: McGraw-Hill.
- Spreen, O. (1988). *Learning disabled children growing up: A follow-up into adulthood*. New York: Oxford University Press, Inc.
- Super, D. E. (1983). Assessment in career guidance: Toward truly developmental counseling. *The Personnel and Guidance Journal*, 61, 555-561.
- Super, D. E., & Nevill, D. D. (1985). *The Salience Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Super, D. E., Thompson, A. S., Lindeman, R. H., Jordaan, J. P., & Myers, R. A. (1979). *Career Development Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Thompson, A. S., Lindeman, R. H., Super, D. E., Jordaan, J. P., & Myers, R. A. (1984). *Career Development Inventory: Vol. 2. Technical manual*. Palo Alto, CA: Consulting Psychologists Press.
- Torgesen, J. K. (1977). The role of non-specific factors in the task performance of learning disabled children: A theoretical assessment. *Journal of Learning Disabilities*, 10, 17-34.
- Westbrook, B. W. (1973). The measurement of cognitive vocational maturity. *Journal of Vocational Behavior*, 3, 239-252.

on the scene

Student Assistance Programs: A Response to Substance Abuse

James H. Palmer
Pamela O. Paisley

In *Developmental Guidance and Counseling: A Practical Approach*, Myrick (1987) outlined a comprehensive school counseling program consisting of crisis, remedial, preventive, and developmental approaches. In a recent ASCA Newsletter, Whitledge (1989), representing the school counseling profession, concurred emphasizing the importance of incorporating crisis, remedial, and preventive components in a developmental counseling curriculum. Although, ideally the focus of school counseling programs is indeed on primary prevention and development, in the realities of life and work, school counselors are often forced to address problems that already exist and that are in some cases well-entrenched. This emphasizes the need in certain situations to include in comprehensive school counseling programs the crisis and remedial components outlined by Myrick.

One area in which this need for intervention in addition to prevention is most apparent is in adolescent substance abuse. In a recent survey of drug and alcohol use among 7th through 12th graders in North Carolina (Alcohol and Drug Defense Program, 1987), alcohol was found to be the most widely used drug across all grade levels (59.59%), followed by cigarettes (48.74%), smokeless tobacco (31.83%), marijuana (30.49%), inhalants (22.54%), uppers (15.68%), and downers (11.05%). Cocaine had been tried by 6.22% of the total sample, and crack by 2.2% of the sam-

James H. Palmer is a visiting assistant professor, School Health Training Center, University of North Carolina at Greensboro. Pamela O. Paisley is an assistant professor, Department of Human Development and Psychological Counseling, Appalachian State University, Boone, North Carolina.